CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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SECURITY INFORMATION

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This is UNEVALUATED Information

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

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1. a. The VEB Werk fuer Fernmeldewesen HF, Berlin Oberschoeneweide, Ostendstrasse 1-5, is now controlled by the Hauptverwaltung Funk (HV Funk) of the Ministerium fuer Post and Fernmeldewesen (Main Radio Administration of the Ministry for Post and Telecommunications). HV Funk, of which Matzke[1] is in charge, occupies the building Berlin-Oberschoeneweide Edisonstrasse. HV Funk also controls the following factories:

VEB Funkwerk Koepenick
VEB Funkwerk Erfurt
VEB Roehrenwerk Anna Seghers, Neuhaus.

These factories were formerly controlled by VVB RFT.

b. The Directorate of the WERK HF consists of

Rudolf Mueller	Works Manager.
Dr. Schiller[2]	Technical Director (Production)
Bormann (fnu)	Labour Director
Frau Hoffmann —	"Culture" Director.
Rohde[3]	Business Director.

The heads of technical departments include:

Dr. Guenther Ulrich	Head of the experimental plant (Versuchswerk)
Dr. Ignatz Ladurner	Development of tubes
Eitel Spiegel[4]	Development of VHF and television apparatus
Eckhard Rehbock[5]	Development of decimeter apparatus.
Lexow (fnu)	Production of equipment
Wetzel (fnu)	Production of tubes.
Rothenburg [6]	Production of components (Bauteile)
Krueger [7]	Production of radio tubes.
Ruhnke (fnu)	Production of metal ceramic tubes.
Benthin (fnu)	Production of oscillograph tubes.
Rauer (fnu)	Production of special tubes.

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e. East German customers have agreed to accept at least 200,000 tubes per month in 1953, provided that the ECH 81 is in production and provided that the Werk HF takes up the production of the EBF 11 and ECH 11. The Funkwerk Erfurt and Roehrenwerk Neuhaus did not have the production capacity to meet the demand for these two tubes.

3. Metal Ceramic Tubes

a. The number to be supplied in 1952 has been reduced to 30,000. Great difficulties were experienced earlier in the year because of the poor quality of the ceramic supplied by the VEB Keramisches Werk Hescho-Kahla (formerly SAG Kabel). The ceramic was not vacuum tight, apparently because zinc sulphate and synthetic talc (Speckstein) had been used in its production, instead of zinc oxide and pure talc as specified. Production of metal ceramic tubes was stopped for two months in June and July while Ruhnke re-organized the department, and the production of ceramic by the Werk HF was started up. Production is now running satisfactorily, using ceramic made by the Werk HF itself.

b. It is planned to step up production to 33,000 in the first quarter 1953, and to 45,000 in each of the other three quarters. The types have not yet been decided.

4. Cathode Ray Tubes:

a. The following production is planned for 1952:

Type	Plan for 1952	Still to be delivered
9" tube	90,000	13,000
7" tube	7,000	7,000
3DP1 (7cm)	2,000	2,000

b. 20,000 9" tubes are to be made in 1952.9 It has not yet been decided what other types are to be made. The TV sets to be made for the German market will incorporate a 12" tube, but it has not yet been decided whether this should be circular or square.

5. Special Tubes

a. The 1952 production plan will be filled without difficulty. Production of the TS 41 and RS 566 has been stopped because of cancellation of orders.

b. Soberbier (fnu) is working on the development of the electrometer tubes T113 (80% complete) and T114 (100% complete), and the LG 16 (90% complete).

c. No details are known as yet of the development plans for 1953.

Decimeter and Centimeter Tube Development

a. Bleich (fnu) is developing the magnetron 730 and the cutoff tube LG 80 for the VEB Funkwerk Koepenick. Five of each were to be delivered by the end of 1952. Development work is 20% completed on the former and 100% on the latter, twenty of which have already been made. The tubes are to be used by Erich Huttmann, Wilhelm Grimm and Erich Schuettloeffel of RFT Funkwerk Koepenick who are conducting experiments in 3 cm. nautical (navigational) radar technique.

b. Bleich is to develop for the VEB RFT Funkwerk Koepenick in 1953 the cutoff tubes LG 76 and LG 79, and the key tube (Tastroehre) LS 500.

c. Heidborn (fnu) has successfully completed the development of an 8 cm. moving field tube (Wanderfeldroehre). He achieved an amplification of 100:1 with 20 db attenuation (Daempfung). He is to develop this tube further for other wavelengths and in smaller sizes in 1953. The VEB Funkwerk Erfurt also intends to develop moving field tubes in 1953.

d. Heidborn has also been working on the development of a 3 cm. output clystron, but he has not made much progress. Rigo (fnu) of the VEB Funkwerk Erfurt is working on a 10 cm. output clystron, also without much progress.

e. Brinckmann (fnu) has almost completed the development of a power cathode (Leistungs - or L - Kathode).

f. Brinckmann is conducting experiments with the object of improving the amplification characteristics of metal ceramic tubes. He is attempting to reduce the back coupling by using a shutter grid (Jalousiegitter) instead of the usual mesh grid (Netzgitter).

g. Items (e) and (f) above are Russian orders. The others are German orders.

7. Transmitter Tube Development

a. Schoenherr (fnu) is developing a 250 watt VHF tetrode (type HF 2815). A type using Kovar or Fernico (ferronickel) is 80% developed. Kovar is, however, no longer available and a version using a copper-glass technique has had to be developed. The development is now 50% complete, and should be completed by the end of the year.

b. Schoenherr has completed the development of a 1 KW VHF triode. About 20 are being made each month.

c. Schoenherr is developing a 3 KW VHF tetrode (type HF 2825). This is 40% complete.

d. Dipl. Ing. Raeck (fnu) is developing a 10 KW VHF triode. This is 80% complete.

e. Raeck is also developing a 20 KW VHF triode. This is 30% complete.

f. A 50 KW VHF triode is scheduled for development in 1953.

g. All of the above items are German orders.

8. Component Development

a. Dr. Kromrey (fnu) is conducting experiments in work load techniques (Druoklasttechnik) developed by Siemens and in the U.S.A. It is hoped high voltage and low voltage ignitrons will be achieved in 1953 using these methods.

b. Nienholdt (fnu) is developing ignitron pins (boron carbide).

c. Dr. Bingel (fnu) assisted by Ing. Fritz Helwig (who worked with Dr. Schloemilch in the USSR) is developing transistors on a silicon-germanium basis.

[redacted] Comments: 25X1

1. Possibly Dipl. Ing. Herbert A. Matzke, [redacted], who worked on a design of television equipment at [redacted] Leningrad, and was formerly with Fernseh. [redacted] 25X1

2. Possibly Dr. Ing. Alfred Schiller, [redacted] who is listed as a cathode ray tube specialist at [redacted] Leningrad. See SO-G-102866. 25X1

3. Possibly Dr. Wolfgang Rohde, [redacted] who is listed as an electronics research specialist at [redacted] Kstovo.

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[redacted] Comments: 25X1

4. Possibly Dr. Dipl. Ing. Eitel F. Sliegel, formerly with Telefunken, who is listed as a vacuum tube specialist, and was in the klystron department at Institute 160, Fryazino, [redacted] 25X1

5. Possibly Dipl. Ing. Eckhard Rehbock, formerly with Telefunken, and an electronics research specialist at the Radio Navigational Development institute, Kuchino, [redacted] 25X1

6. Possibly Ing. Paul Rothenburg, chief engineer of tube production at Institute 160, Fryazino. [redacted] 25X1

7. Possibly Ing. Heinrich Krueger, who worked on the reconstruction of American receiver and small transmitter tubes at Institute 160, Fryazino. [redacted] 25X1

8. [redacted] Comment: Possibly Georg Kleinschnitz. [redacted]
UNC[redacted] 25X1

9. [redacted] Comment: The statistics quoted here are not understood; they are transmitted as received. 25X1

c. No "National Prize" was won this year by this factory. The title of "Meritorious Inventor" (Verdienter Erfinder) was awarded to:

Dr. Ignatz Ladurner for work on VHF tubes.
Roman Ahrens for work on VHF and TV transmitters [redacted] 25X1
Wilhelm Rieger for work on teleprinters.
Alexander Hardt for work on telephone Monitors.
Kleinschmidt [redacted] - received award for work on single sideband power line telephony (EWT or Elektrizitaetswerke-Telephonie).

2. Radio Tubes

a. The factory is experiencing difficulty in disposing of its output of radio tubes. The main reasons for this are:

1. The VEB Sachsenwerk Radeberg (formerly SAG Kabel) originally placed an order for the delivery in 1952 of 40,000 sets of tubes for the T2 "Leningrad" television receivers. This order has now been reduced to 30,000 sets as a result of a corresponding reduction in Radeberg's output quota.

2. Russian-made 6J5 and 6H6 tubes are being fitted in the T2 TV sets instead of those originally ordered from the Werk HF. The Russian tubes are built on pinched bases (Quetschfuesse) as opposed to the molded bases (Pressteller) of the Werk HF tubes. They also have a higher internal capacity, which does not conform with international specifications, and are therefore not interchangeable with the Werk HF tubes.

3. The 6 SA 7 tube is unpopular. High priority is being given to the development of another mixer, the ECH 81, and it is hoped that series production will commence in mid-December 1952.

b. The VEB Sachsenwerk Radeberg will require 20,000 sets of tubes for T2 TV sets in the first half of 1953. A new model incorporating miniature tubes is scheduled for production after July 1953. Details have not yet been decided.

c. The following series of miniature tubes is being developed for use in the VHF and TB program. Development is to be completed by the third quarter 1953, when series production should commence:

6 AL 5	Development	100%	completed on 1 November 1952
6 AG 5	Development	100%	completed on 1 November 1952
6 J 6	Development	100%	completed on 1 November 1952
6 AK 5	Development ca	80%	completed on 1 November 1952
12 AT 7	Development ca	70%	completed on 1 November 1952
6 X 4	Development ca	90%	completed on 1 November 1952
EY 51	Development ca	50%	completed on 1 November 1952
PL 81	Development ca	10%	completed on 1 November 1952
PL 82	Development	0%	completed on 1 November 1952
EF 80	Development ca	20%	completed on 1 November 1952
EABC 80	Development	0%	completed on 1 November 1952
EF 85	Development	0%	completed on 1 November 1952
ECH 81	Development ca	60%	completed on 1 November 1952
ECL 81	Development	0%	completed on 1 November 1952

d. The factory achieved 104% of its production target for the third quarter and 95% of its production target for the period January-September 1952. This favorable result could, however, only be achieved by including in the figures the tubes in the so-called "8 days store" in which tubes are kept for testing before they are handed over to the Sales Department. It is hoped that the production will improve, and that it will be possible to make up this week's production by the end of the year.